

**ENVIRONMENTAL PROTECTION COMMISSION[567]**

**Adopted and Filed**

Pursuant to the authority of Iowa Code section 455B.133, the Environmental Protection Commission hereby amends Chapter 23, "Emission Standards for Contaminants," Chapter 24, "Excess Emission," and Chapter 28, "Ambient Air Quality Standards," Iowa Administrative Code.

The primary purpose of the amendments is to update state air quality rules by adopting new federal requirements, including adoption of new national ambient air quality standards (NAAQS) and adoption of new federal air toxics standards. The amendments also provide the option to submit initial excess emission reports by E-mail.

Notice of Intended Action was published in the Iowa Administrative Bulletin on June 16, 2010, as **ARC 8845B**. A public hearing was held on July 19, 2010. No oral or written comments were presented at the hearing. One set of written comments was received prior to the close of the public comment period on July 20, 2010. The submitted comments and the Department's response to the comments are summarized in the public responsiveness summary available from the Department. The Department did not make any changes to the adopted amendments from those published under Notice of Intended Action.

**Item 1** amends the introductory paragraph of subrule 23.1(2), the provisions that adopt by reference the federal new source performance standards (NSPS) contained in 40 CFR Part 60. The NSPS program requires new and existing facilities in a particular industry sector that construct and operate specific equipment to meet uniform standards for air pollutant emissions. NSPS requirements vary depending on the processes, activities or equipment being regulated, and whether the processes, activities or equipment is considered to be new or existing.

This amendment adopts by reference federal amendments to two existing new source performance standards. EPA promulgated amendments to an additional NSPS that the Department did not adopt, as explained in more detail below.

On April 28, 2009, EPA finalized amendments to the NSPS for nonmetallic mineral processing plants (Subpart OOO). This NSPS affects facilities such as aggregate processing plants or concrete batch plants which commence construction, modification, or reconstruction on or after April 22, 2008. These amendments include new emission limits, additional testing and monitoring requirements, changes to simplify the notification requirements for all affected facilities, changes to definitions, and various clarifications.

The Department estimates that approximately 200 portable and fixed plants are subject to the original NSPS Subpart OOO requirements. However, these facilities are only subject to the requirements in the new federal amendments if the facilities commenced construction, modification or reconstruction after April 22, 2008. The Department is aware of only a few facilities that are affected by the new NSPS requirements at this time. More facilities may become subject to the new requirements in the future. The Department is working with individual facilities regarding the new Subpart OOO requirements as facilities submit permit applications for construction, modification, or reconstruction.

On October 8, 2009, EPA finalized amendments to the NSPS coal preparation and processing plants (40 CFR 60 Subpart Y). This NSPS affects facilities that prepare and process coal, such as electric utilities and industrial operations. The federal amendments include revisions to the emission limits for particulate matter and opacity standards for thermal dryers, pneumatic coal cleaning equipment, and coal handling equipment. The revised limits apply to affected facilities that commence construction, modification, or reconstruction on or after April 28, 2008. The federal amendments also establish a sulfur dioxide (SO<sub>2</sub>) emission limit and a combined nitrogen oxide (NO<sub>x</sub>) and carbon monoxide (CO) emissions limit for thermal dryers. In addition, the federal amendments establish work practice standards to control fugitive coal dust emissions from open storage piles. The SO<sub>2</sub> limit, the NO<sub>x</sub>/CO limit, and the work practice standards apply to affected facilities that commence construction, modification, or reconstruction on or after May 27, 2009.

The Department estimates that approximately 50 facilities are subject to the original Subpart Y requirements. However, only facilities that undergo construction, modification or reconstruction on or after the dates noted above are subject to the new requirements. At this time, the Department has identified only a few facilities that are affected by the new NSPS requirements. More facilities may be subject to the new requirements in the future. The Department is working with individual facilities that may be subject to the new Subpart Y requirements as facilities submit permit applications for construction, modification, or reconstruction.

On October 6, 2009, EPA amended the NSPS and emission guidelines for new hospital/infectious/medical waste incinerators (HMIWI) (Subparts Ce and Ec). The Department is not adopting these new federal amendments because Iowa no longer has any operating incinerators affected under the HMIWI regulations, and the Department anticipates that no new HMIWI will be constructed in Iowa. Many HMIWI throughout the United States have shut down because less expensive alternative waste disposal options are available. The Department is not required to adopt federal NSPS for which there are no affected facilities and for which there are no affected facilities reasonably expected to exist in the future. The Department is taking additional rule-making action regarding the currently adopted HMIWI regulations, as explained under Item 3 and Item 6.

**Item 2** amends paragraph 23.1(2)“sss” to revise the explanation accompanying the adoption by reference of the NSPS for municipal waste combustors (Subpart Eb). When the Department adopted EPA’s 2006 amendments to this NSPS through a prior rule making, the Department did not at that time modify the explanatory text to be consistent with the federal amendments. This amendment modifies the text so that it is identical to the current federal regulations.

**Item 3** amends paragraph 23.1(2)“ttt” to add a note rescinding adoption by reference of the federal NSPS regulations for HMIWI (Subpart Ec). As explained above, the state does not have any HMIWI affected under NSPS Subpart Ec and does not expect to have any affected HMIWI in the future.

**Item 4** amends the introductory paragraph of subrule 23.1(4), the emission standards for hazardous air pollutants for source categories, also known as national emission standards for hazardous air pollutants or NESHAP, to adopt recent amendments that EPA made to 40 CFR Part 63. The NESHAP program requires facilities in a particular industry sector that construct and operate specific equipment to meet uniform standards for hazardous air pollutants (HAP). NESHAP requirements for source sectors vary depending on the processes, activities or equipment being regulated.

The NESHAP affect both new and existing major sources and area sources. Area sources are usually smaller commercial or industrial operations. Specifically, area sources have potential emissions less than 10 tons per year (tpy) of any single hazardous air pollutant (HAP) and less than 25 tpy of any combination of HAP and are classified as minor sources for HAP. Facilities that have potential HAP emissions greater than or equal to these levels are classified as major sources. HAP are sometimes also known as “air toxics.”

This rule making includes adoption of new or amended NESHAP potentially impacting some facilities or businesses that previously had few, if any, air quality requirements. Because of the potential impacts to small businesses and previously unregulated facilities, the Department is developing implementation strategies in conjunction with this rule making. The strategies include cooperative efforts with the University of Northern Iowa (UNI), Iowa Air Emissions Assistance Program; Iowa Department of Economic Development (IDED); the Linn County and Polk County local air quality programs; and other interested associations and organizations to provide outreach and compliance assistance to stakeholders.

The Department’s outreach strategies are specific to each rule and depend on a number of factors, including: the estimated number of facilities and small businesses affected, the compliance date of the rule, the requirements of the rule (such as emissions control, work practices standards, etc.), and current level of air quality knowledge (such as air permits or active industry associations). As Department resources allow, outreach may include informational meetings, workshops, fact sheets, guides, and Internet-based tools. It is hoped that this rule making, in conjunction with current and future efforts of the Department and its compliance assistance partners, will result in reductions in air toxics and other

air pollutant emissions, while minimizing the regulatory burden to small businesses and other affected facilities.

EPA promulgated amendments to the reciprocating internal combustion engine (RICE) NESHAP on March 3, 2010. The NESHAP amendments primarily impact existing stationary compression ignition (CI) engines (diesel-fueled engines) at major and area sources. Affected, existing engines must comply with the NESHAP requirements by May 3, 2013.

NESHAP requirements are set to reduce air toxics, and, in this case, formaldehyde is the targeted HAP. EPA set standards in the NESHAP to reduce carbon monoxide (CO), which is being used as a surrogate for reducing formaldehyde emissions. Emissions of particulate matter (including fine particles (PM<sub>2.5</sub>)), sulfur dioxide (SO<sub>2</sub>), and volatile organic compounds (VOC) are also expected to be reduced by 2013.

The NESHAP requirements vary depending on the size of the engine, whether the engine is classified as “emergency” or “non-emergency,” and whether the engine is located at a major source or an area source. Emergency engines and engines rated at 100 horsepower (HP) or less at major sources and 300 HP or less at area sources are not subject to emission limits, monitoring or performance testing requirements. Rather, emergency engines and small engines are required to implement management/maintenance practices on a set schedule, including changing oil and oil filters, inspecting the air cleaner, and inspecting hoses and belts.

Owners or operators of non-emergency engines must install a closed crankcase ventilation system and use ultra low sulfur fuel. Further, owners or operators of non-emergency engines are required to meet standards for CO emissions by either meeting a numerical emission limit or by reducing CO emissions by at least 70 percent. EPA expects that most owners or operators of non-emergency engines will need to install control equipment, most likely a diesel oxidation catalyst (DOC), to meet the CO emissions requirements. Facility staff will be required to monitor set parameters to ensure that the catalyst is operating correctly. Facility staff will also be required to conduct an initial performance test (stack test) for CO, and conduct periodic tests on a specified schedule thereafter.

EPA estimates that 80 percent of the estimated 900,000 affected RICE engines nationwide will be classified as emergency engines. These estimates appear to be accurate and possibly an underestimate for engines at industrial or commercial facilities that do not supply power to the grid as part of a financial arrangement with another entity. Therefore, the Department expects that the vast majority of engines at these facilities will meet the NESHAP definition of “emergency.”

However, the Department expects that a lower percentage of engines located at municipal utilities may be classified as emergency. Based on current discussions with EPA and with stakeholders, the Department expects that approximately one-third (~33 percent) of these engines will meet the definition of “emergency.” This estimate for municipal utilities also includes other institutional, industrial or commercial facilities that supply power to the grid as part of a financial arrangement with another entity, such as an investor-owned utility or a cooperative utility.

Regulated entities, municipal utilities in particular, have expressed concern about the potential costs of complying with the NESHAP for engines that do not qualify as “emergency.” The Department has been working closely with Iowa Association of Municipal Utilities (IAMU), Southern Iowa Municipal Electric Cooperative Association (SIMECA), Resale Power Group of Iowa (RPGI), individual municipalities, and others to address these concerns. The Department is pressing EPA to get expeditious answers to specific questions and scenarios associated with engine classification. The Department is also working closely with stakeholders to identify alternative emissions reductions options, such as use of biodiesel and making certain types of engine modifications that may meet the NESHAP requirements and may also cost considerably less than engine control retrofits.

The Department is conservatively estimating that two-thirds (~67 percent) of the stationary CI engines at major sources providing power to the grid, including investor-owned utilities, cooperatives, and larger municipal utilities, will be subject to the NESHAP emission standards. The Department is also estimating that up to 67 percent of the engines at area sources providing power to the grid, including engines at municipal utilities and other institutional, commercial or industrial facilities, will be subject to the

NESHAP emission standards. Since this 67 percent estimate is across the power generation source sector, some facilities may have more of their engines impacted, while some may have fewer.

Based on U.S. Department of Energy data from 2008, major source emissions inventories, and the assumption that approximately 67 percent of engines at power-supplying facilities will be classified as “non-emergency,” the Department estimates that up to 314 engines will be subject to emission standards, monitoring and testing requirements.

**Items 5, 6 and 7** amend subrule 23.1(4) by adopting new paragraphs “ev,” “fa,” “fb,” “fc,” and “fd” to adopt by reference new NESHAP for new and existing area sources. The Department adopts by reference three newly promulgated NESHAP for area sources, as explained in more detail below.

On October 29, 2009, EPA finalized the area source NESHAP for chemical manufacturing (Subpart VVVVVV). This NESHAP affects area sources under several chemical manufacturing sectors, including pharmaceutical production, agricultural chemicals and pesticides manufacturing, and organic chemical manufacturing, that emit one or more of 15 specific HAP. The NESHAP includes management practices and, in some cases, add-on control, to reduce emissions from process vessels, storage tanks, transfer racks, heat exchange systems and wastewater. Existing facilities have until October 29, 2012, to be in compliance with the NESHAP.

The Department estimates that there may be up to 100 facilities subject to this NESHAP. However, many facilities may not be emitting the affected HAP in regulated quantities or may elect to discontinue use prior to the NESHAP compliance date. Many other facilities are already following management practices under other federal standards that are identical or similar to the NESHAP requirements. In the near term, the Department expects to work individually with facilities on NESHAP applicability, particularly as these facilities submit permit applications for review. Over the next six months, the Department and its compliance assistance partners will determine if a more extensive NESHAP outreach strategy is appropriate.

On December 3, 2009, EPA finalized the area source NESHAP for paint and allied products manufacturing (Subpart CCCCCC). This NESHAP affects area sources that manufacture paint, ink or adhesive and that process, use, or generate materials containing chromium, lead, nickel or cadmium, benzene or methyl chloride. Affected facilities are required to operate particulate control equipment to control metal air toxics and must use management practices to control volatile air toxic emissions. Existing facilities have until December 3, 2012, to comply with the NESHAP requirements.

Currently, the Department estimates that 50 facilities may be subject to this NESHAP. However, many facilities may not use, or may elect to discontinue use of, the affected HAP before the NESHAP compliance date. In the near term, the Department expects to work individually with facilities on NESHAP applicability, particularly as these facilities submit permit applications for review. Over the next year, the Department and its compliance assistance partners will determine if a more extensive NESHAP outreach strategy is appropriate.

On January 5, 2010, EPA finalized the area source NESHAP for prepared feeds manufacturing (Subpart DDDDDDD). This NESHAP affects area sources that produce animal feed products and use materials that contain chromium (Cr) or manganese (Mn). Affected facilities must apply management practices in the area of the facility where materials containing chromium or manganese are stored, used or handled. Facilities that produce more than 50 tons per day of feed will also be required to operate control equipment to reduce chromium and manganese emissions from pelleting and pelleting cooling operations. Existing facilities will have until January 5, 2012, to comply with the NESHAP requirements.

The Department estimates that approximately 250 facilities meet the definition of prepared feeds manufacturing under the NESHAP. The Department is working closely with its compliance assistance partners at the University of Northern Iowa (UNI) Air Emission Assistance Program and the Iowa Department of Economic Development (IDED) and with the Agribusiness Association of Iowa (AAI) to determine how many facilities will be subject to the NESHAP.

Based on discussion with AAI and the National Grain and Feed Association (NGFA), a voluntary survey conducted by UNI, and NESHAP initial notifications submitted to the Department, the Department estimates that up to 40 percent of potentially affected facilities (~100) may meet one of the

NESHAP exemptions. Most of these facilities either do not use Mn or Cr or will be able to modify the additives and pre-mixes to reduce Mn or Cr below the regulated concentrations.

Based on the sources of information described above, the Department estimates that 50 of the 150 NESHAP-affected facilities have pelleting operations and have daily feed production exceeding 50 tons and, therefore, may be subject to the cyclone control, operation and monitoring requirements.

The Department has not adopted two other recently promulgated area source NESHAP, the NESHAP for asphalt processing and asphalt roofing manufacturing (Subpart AAAAAAA) and the NESHAP for chemical preparation (Subpart BBBBBBB). Iowa does not have any facilities subject to these NESHAP and is unlikely to have any subject facilities in the future.

**Items 8 and 9** amend paragraph 23.1(5)“b” to rescind the emission guidelines for existing HMIWI. EPA originally promulgated emission guidelines for existing HMIWI in 1997 and the Department adopted these emission guidelines in 1998. At that time, Iowa had two operating HMIWI affected under the emission guidelines. These two HMIWI have since shut down.

This rule making rescinds the existing emission guidelines because the Department is not required to retain federal emission guidelines for which the state has no subject facilities and for which the Department can reasonably expect not to have any subject facilities in the future.

**Item 10** amends subrule 24.1(2), the requirements for oral reporting of excess emissions. The amendment changes the description in this subrule to “initial report of excess emissions” and also adds the option for the owner or operator to submit the required excess emissions information to the Department by electronic mail (E-mail).

In some cases, E-mail will be a more accurate and efficient method for owners and operators to provide these reports. E-mail reporting will eliminate Department staff time in transcribing the initial report and will enable staff to more efficiently input the information into reports and databases. Since E-mail may not be available or convenient in all cases, owners and operators will still be allowed to make an initial report of excess emissions in person or by telephone.

Owners and operators must still follow up their initial excess emissions report with a written, hard-copy report. This amendment does not allow an E-mail option for written excess emissions reporting at this time due to EPA’s requirements under the federal cross-media electronic reporting rule (CROMERR). CROMERR requires special electronic verification that the Department has not yet established for excess emissions reports. The Department hopes to provide an electronic option for these reports in the future.

**Item 11** amends subrule 24.1(3), the provisions for a written report of excess emissions. The amendment changes the term “oral” report to “initial” report to be consistent with the amendment described in Item 10. This amendment does not allow an E-mail option for written excess emissions reporting at this time due to EPA’s requirements under CROMERR. CROMERR requires special electronic verification that the Department has not yet established for excess emissions reports.

**Item 12** amends rule 567—28.1(455B) to adopt by reference new national ambient air quality standards (NAAQS). On February 9, 2010, EPA strengthened the NAAQS for nitrogen dioxide (NO<sub>2</sub>) by adding a new 1-hour standard to more adequately protect public health and welfare. EPA set the new 1-hour NO<sub>2</sub> standard at the level of 100 parts per billion (ppb). In addition to establishing an averaging time and level, EPA also set a new “form” for the standard. The form is the air quality statistic used to determine if an area meets the standard. The form for the 1-hour NO<sub>2</sub> standard is the 3-year average of the 98th percentile of the annual distribution of daily maximum 1-hour average concentrations. EPA retained, with no change, the current annual average NO<sub>2</sub> standard of 53 ppb.

EPA expects to designate areas as attaining or not attaining the new standard by January 2012 using NO<sub>2</sub> monitoring data from the current communitywide monitoring network. Once the expanded network of NO<sub>2</sub> monitors required under the new standard is fully deployed and three years of data have been collected, EPA intends to redesignate areas in 2016 or 2017, as appropriate, based on the air quality data from the new monitoring network. The Department will need to complete and submit revisions to the state implementation plan (SIP) for NO<sub>2</sub> by January 2013. The SIP revision will include any rule changes necessary to implement the new standard.

These amendments are intended to implement Iowa Code section 455B.133.

These amendments shall become effective on November 24, 2010.

EDITOR'S NOTE: Pursuant to recommendation of the Administrative Rules Review Committee published in the Iowa Administrative Bulletin, September 10, 1986, the text of these amendments [23.1, 24.1, 28.1] is being omitted. These amendments are identical to those published under Notice as **ARC 8845B**, IAB 6/16/10.

[Filed 9/23/10, effective 11/24/10]

[Published 10/20/10]

[For replacement pages for IAC, see IAC Supplement 10/20/10.]